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TCS 4650/63-KH
M/EB 465/63
4 November 1963
Copy 1

MEMORANDUM FOR: Chief, Military-Economics Division, ORR

25X1A ATTENTION: [redacted]

THROUGH: Chief, Requirements Branch, Reconnaissance Group, CGS

FROM: Chief, CIA/PID (NPIC)

SUBJECT: Analysis of Complex E, Tyura Tam Missile Test Center, USSR

REFERENCE: (a) Requirement C RR-3-80,577
(b) CIA/PID Project C 1291-63

1. In response to your requirement dated 16 September 1963 a detailed analysis and line drawing were prepared on Launch Complex E, Tyura Tam Missile Test Center, USSR.

25X1D 2. Reanalysis of Complex E was initiated as a result of the superior
25X1D quality and good scale [redacted] of [redacted]
All other photo coverages of Complex E were utilized for comparative purposes.
25X1D Although [redacted] was superior in quality to any other KEYHOLE mission, the
inherent image of many small items was not sufficient to permit definite identification. These items can be categorized as types of vehicles, mobile equipment and small structures. Also included in this category would be items of complex configuration such as radars, launch stands, lattice towers, and items generally smaller than the accepted resolution capability.

The line drawings and associated bar scales were carefully prepared to allow the user to measure gross distances. However, the drawings were prepared from unrectified prints and should be referred to with some caution. Photo scale and
25X1D height measurements were provided by TID/NPIC. All building measurements were rounded off to [redacted]

(a) Detailed Analysis

(1) General (Figure 1): This complex is almost completely triple fenced. Two abandoned or dismanteled parallel fence lines are located
25X1D in the northwest portion of the area. These two lines can be identified as
25X1D early as [redacted] No fence lines were observed on photo-
25X1D graphy of [redacted] On [redacted] these two scars passed through what is now the immediate area of Pad E3 and terminated at the present northeast fence corner. However, the two existing parallel fences, which are

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separated by a distance of about 40 feet, were also present. No construction
25X1D activity could be identified in the area of Pad E3 on [redacted]. The present outermost fence line will probably be extended to enclose the facilities located near the entry road upon completion of those facilities. At present the outer fence is separated from the other fences by a distance of about 140 feet. The roads within the area are blacktop, concrete, and graded earth.

(2) Pads E1/E2 and Environs (Figures 1 and 2): Most of the facilities at Pad E1 have counterparts at Pad E2. Construction acitivity, primarily in the form of ditching, is taking place around both pad areas. The missile ready buildings (Figure 2, Items 1 and 2) measure 150 by 75 feet and are about 30 feet high. Each has a very shallow gable roof and an appendage along their north side with a walkway leading to a small unidentified object. Each object is located approximately 145 feet from each building. There are two
25X1D small vehicles or pieces of equipment about [redacted] feet long parked near the east end of Item 1 and a similar small object on the apron at the west end of the same building. There are three 25 foot vehicles parked near the east end of Item 2 and a vehicle or piece of equipment protruding from the front of the building at the west end. Each building has rail (s) connecting the building to the pad. In no case can a rail, per se, be identified either crossing th apron at the west end of the buildings or leading on to the pad. The degree of reliability of extension of the rail trace is reflected in Figure 2 by the use of solid (firm) and dashed (probable) lines. Even in the optimum case (i.e. northernmost trace) can a rail be seen crossing the apron. Therefore it is not unrealistic to assume that all the rail traces actually enter the ready buildings. The road bed south of Item 2 is either heavily stained or in a deteriorated condition as shown by the shading. The launch support buildings (Items 3-8), which are probably concrete, are located on either side of Pads E1 and E2. They measure 195 by 55, 110 by 35, and 105 by 45 feet respectively. One building (Item 3) has an appendage on the north side which measures about 20 feet square. The top of the appendage is lower than the roof of the main section. This appendage could be
25X1D identified as early as [redacted] Two of these buildings (Items 5 and 6) have a small appendage at their west end which resembles a personnel entrance. The distance between Items 3 and 5, and 4 and 6 is 155 feet. The distance from Item 7 and 8 to the east edge of the pads is about 300 feet.

The pad at E1 is void of activity but has a roughly circular area of stain or discoloration indicating previous activity. This darkened area is centered between the towers adjacent to the pads. The lattice towers at E1 and E2 are separated by a distance of about 255 and 240 feet respectively and are approximately 150 feet tall. Each tower has an inclined structure near its base. The

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high end of the structure is nearest the tower. [redacted]

25X1B [redacted]

25X1B

There are several objects (Items 17-20) located between E1 and E2 which do not have counterparts or are related in function to both E1 and E2. These include two buildings measuring 30 by 15 and 40 by 35 feet (Items 17 and 18), a small building or bunker (Item 19), and a graded area (Item 20) measuring about 125 by 100 feet and containing seven vehicles/equipment. A probable vehicle, 20 feet long is parked west of Item 17.

(3) Pad E3 and Environ (Figures 1 and 3): The overall size of the pad measures about 200 by 130 feet. In the center of the pad is a circular image (Figure 3, Item 1) 60 feet in diameter. This image is flush with the pad. In the center of this circle is a circular probable launch stand measuring 15 feet

25X1D in diameter, and about [redacted] feet tall. The exact configuration, i.e. cylindrical, truncated cone, etc., cannot be determined due to dark imagery. The rail leads directly to the probable launch stand. It is also located midway between the two 150-foot towers which are about 175 feet apart. These towers do not have the associated structures near their base as do the other four towers. There are two vehicles measuring 25 feet long inside the 60 foot circle and a probable tank truck just south of it. A possible vehicle is positioned in line with the rail. The most prominent structure in the area (Figure 3, Item 2) abutts the south side of the pad. It appears as a structure mounded at the base or constructed atop a

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mound. The visible portion of this structure has a "step" configuration. The taller part is on the east side and is estimated to be 25 to 35 feet high. A depression or excavation was observed in this particular area early in the construction of Pad E3. A similar structure was observed at two pads at Kozelsk ICBM site on [redacted] No additional details are available from that mission due to the smaller scale. [redacted]

25X1D
25X1B
25X1B
25X1B

Two very small undientified objects (Item 3) are located on the north edge of Pad E3. Just beyond the north side of the pad is a mounded semi-buried structure or tank. The shadow of this mound is prominent on several earlier missions. A mound similar to this one is located in the same relative position at the deployed Type IIc launch sites. A prepared parking area (shown by dashed lines) is located north of the pad and connects to the pad by means of a narrow driveway. A shallow rectangular earthen basin (Item 5) is located west of the pad. A mounded probable pipe leads toward the pad. A probable extension of the same mound parallels the south edge of the pad and disappears in the shadow of the mound. The basin is so located that liquids could gravitate to it. A large mounded structure (Item 6) and a building (Item 7) are located south of the loop road serving Pad E3. The building measures 30 by 15 feet and abutts a narrow driveway which terminates near a small object south of Item 6. There is evidence of a ground scar leading from this building toward the triad. The mound has a possible vehicular entrance which is served by a driveway. Another drive or walkway is located further to the west but no entrance into the bunker can be identified.

(4) Triad Configuration (Figures 1 and 3): The triad configuration is served by a well graded improved road. The road surface or aprons immediately in front of the three structures is concrete. Construction activity in the form of ditching is taking place in the area. Debris from the ditch which parallels the entry road has been dumped onto the road with little regard for traffic. This road was also interdicted by a trench which has been backfilled. The three structures are flat roofed (Figure 3, Item 8-10) and measure 60 by 40 feet, 80 by 45 feet, and 65 feet square respectively. All three structures are concrete and partially earth mounded on the sides as shown in Figure 3. Each has retaining walls constructed at the entrance. The roof of the structure to the north (Item 8) is very dark when compared to the other two structures. A narrow object or vehicle, at least 30 feet long, is parked in the shadow of one retaining wall at Item 9. The plan view of the south structure (Item 10) is more complex than the other two. It has a small object protruding from a point near the base along the west side. This protrusion may be earth covered at a later date. This structure also has an appendage or overhang along its north side. The retaining walls may be under construction at this structure.

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There is nothing evident at the triad facility which suggests a function of guidance. The construction and bunkering of the structures would more likely suggest fuels/propellants. The accurate positioning, orientation and bunkering of the facility may indicate some application in re-entry vehicle calibration or checkout. The bunkering of these structures at an R and D complex in contrast to the evident dispersal at the deployed sites indicates that some substance, explosive in nature, is present at times. Some correlation may be present in the fact that the ready buildings at deployed sites are bunkered. Unless the access roads are to be paved at a later date, the material handled or stored in these structures are probably not often moved. A similar triad has also been identified to the rear of Pad C3 at Complex C. The triad at Complex C was under construction on [redacted] and was not present on [redacted]

25X1D
25X1D

(5) Electronics Facility (Figures 1 and 4): The electronics facility contains three probable domed antennas (Figure 4, Items 1-3) forming an isosceles triangle, four probable terminal structures, (Item 4) and two possible antennas (Item 5). The distances from Item 1 to 2 and 2 to 3 is 860 feet. The distance from Item 1 to 3 is 1,215 feet. A fourth possible domed antenna (Item 6) is located near the north fence line and is 860 feet from Item 3. A ground scar can be identified leading from Item 3 toward Item 6. There are four small objects (Item 4) which may possibly be terminal or junction facilities. A short leg of the antenna (Item 5) extends southeast and branches to terminate at two unidentified objects, possibly antennas. A parking hardstand and a small building (Item 6) and five very small unidentified objects (Item 7) are located near the terminus of the road serving the facility. A 135 by 45 foot building (Item 8) is located just north of the road serving the electronics facility. To the rear of the building is a structure or possible dome (Item 9) measuring 15 feet in diameter. There are three other unidentified objects, one to the rear and two in front of Item 8. Across the road is a parking area containing two small vehicles. West of the parking area is a building (Item 10) which measures 25 by 20 feet.

(6) Ancillary Facilities (Figures 1 and 5): There are six buildings, two subsurface tanks under construction, a steam/power plant, and a possible buried tank or structure located outside the south fence line near the entrance to the launch area. The outermost fence will probably enclose this area after construction is completed. A T-shaped building (Figure 5, Item 1) is located near the terminus of a long open ditch and measures 150 by 90 feet overall. Other buildings include a barracks-type building (Item 2) measuring 95 by 25 feet, a shed 35 by 20 feet (Item 3) and a step-roof building (Item 4) measuring 60 by 65 feet. The higher portion is 40 feet across and the lower

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portion 20 feet across. This building is under construction and a crane is located nearby. Also included is a 120 by 40 foot building (Item 5), a steam/heat plant measuring 60 by 25 feet with a large stack (Item 6), and finally a small 25 by 20 foot building (Item 7). There are two subsurface 50-foot diameter tanks (Item 8) under construction. A buried tank or structure (Item 9) is located below and contiguous to the east side of a prepared parking area or hardstand as shown. A mounded pipeline or conduit can be seen paralleling the main access road serving the launch area but disappears near the bend in the road.

25X1A 3. The photo analyst on this project is [redacted] and he may be contacted on extension 2078 for additional information.

4. This project is considered to be complete.

25X1A [redacted]

Enclosures:
1 - Five (5) line drawings
(CIA/PID/MEB-P-246/63 thru P-250/63)

ILLEGIB [redacted]

ILLEGIB [redacted] [redacted] 25X1D

[redacted] 25X1D

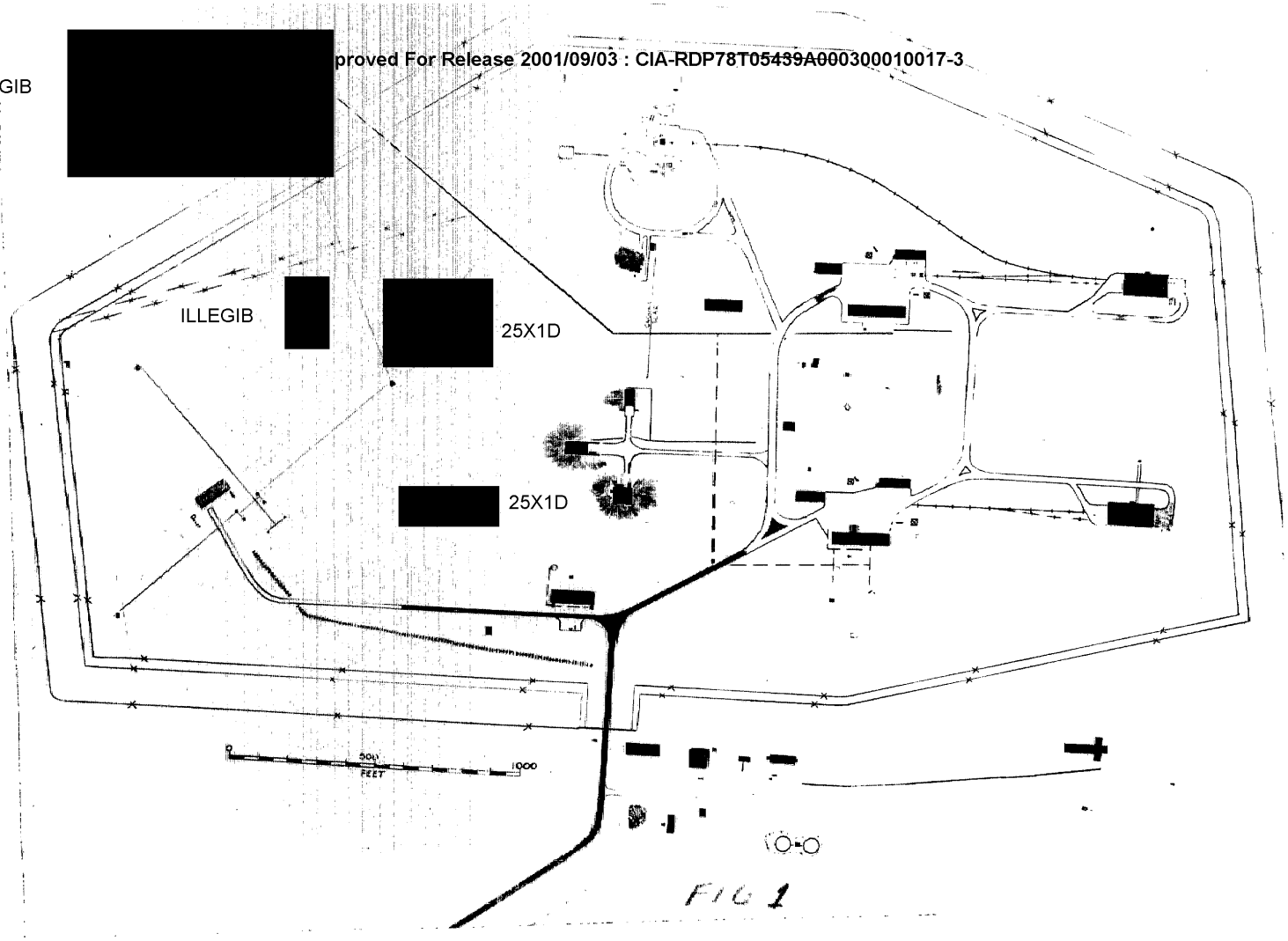

FIG 1

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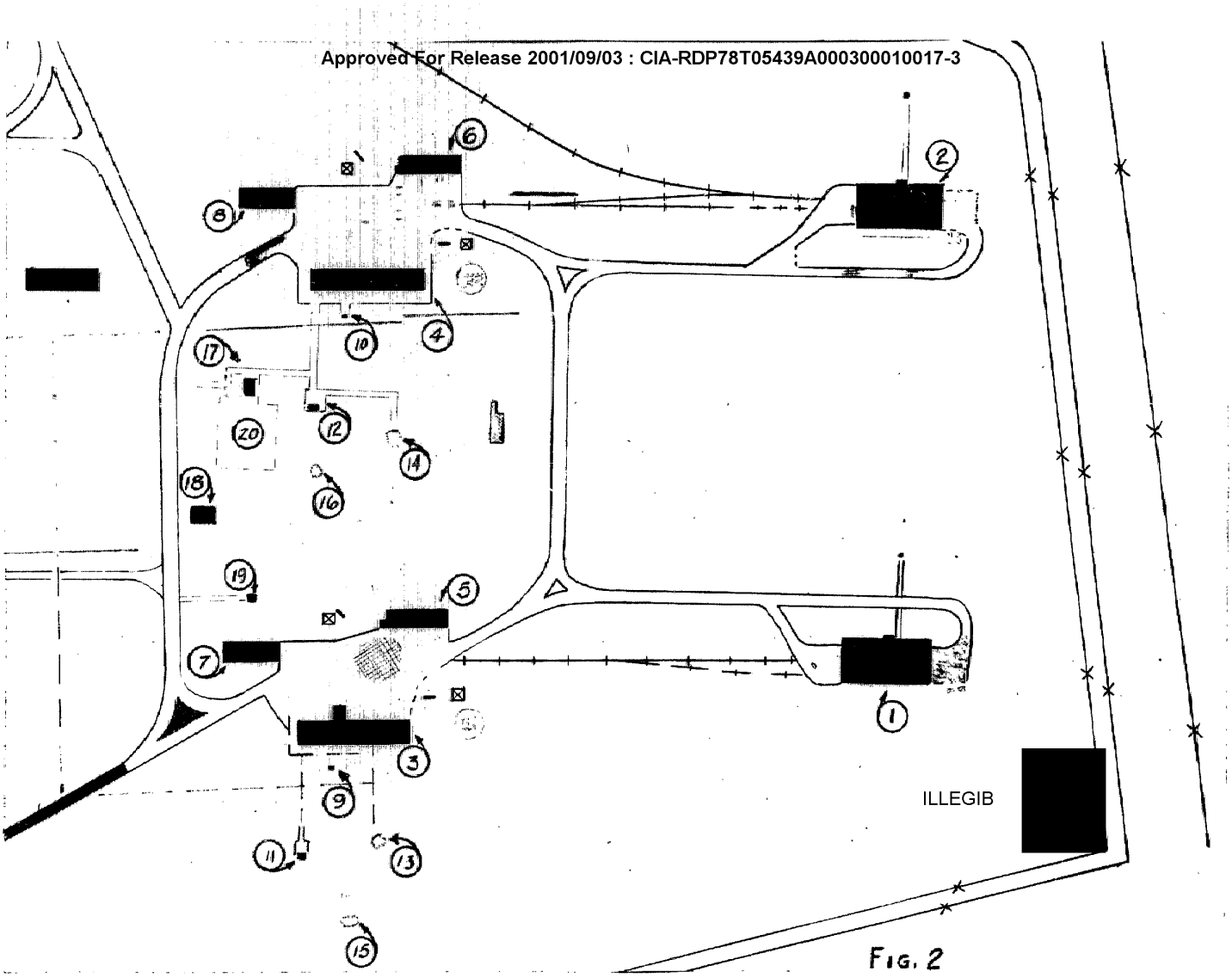

FIG. 2

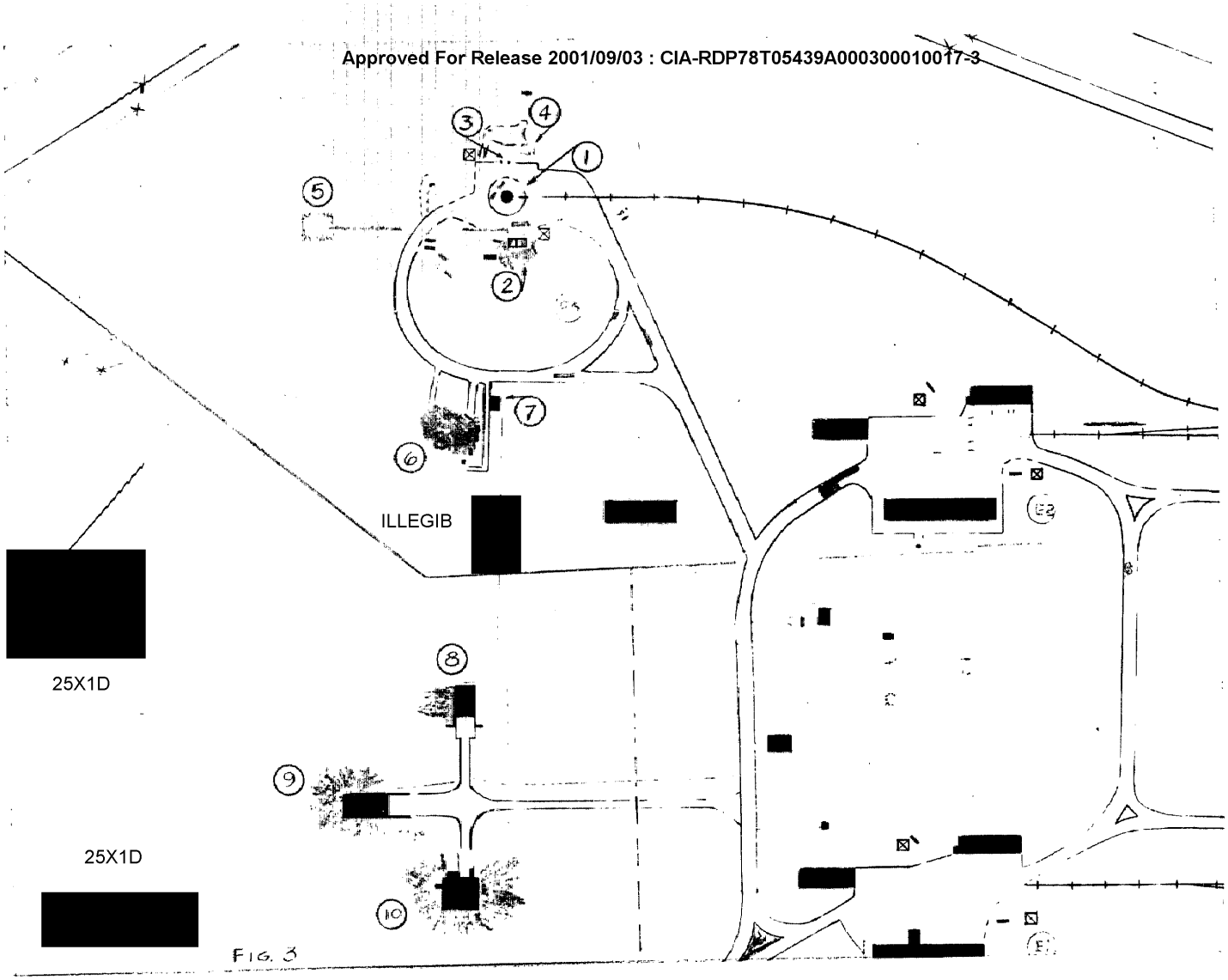

FIG. 3

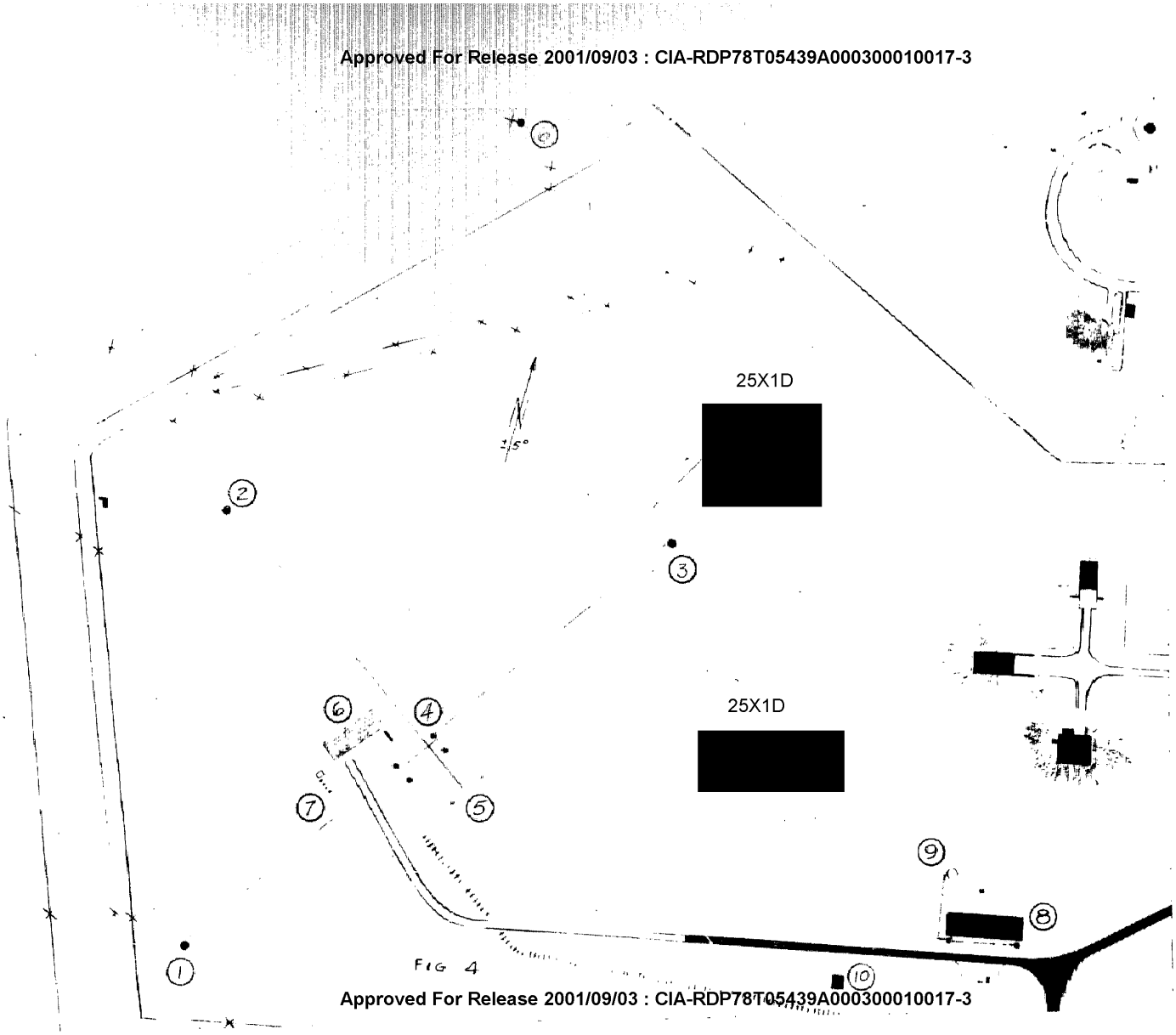

FIG 4

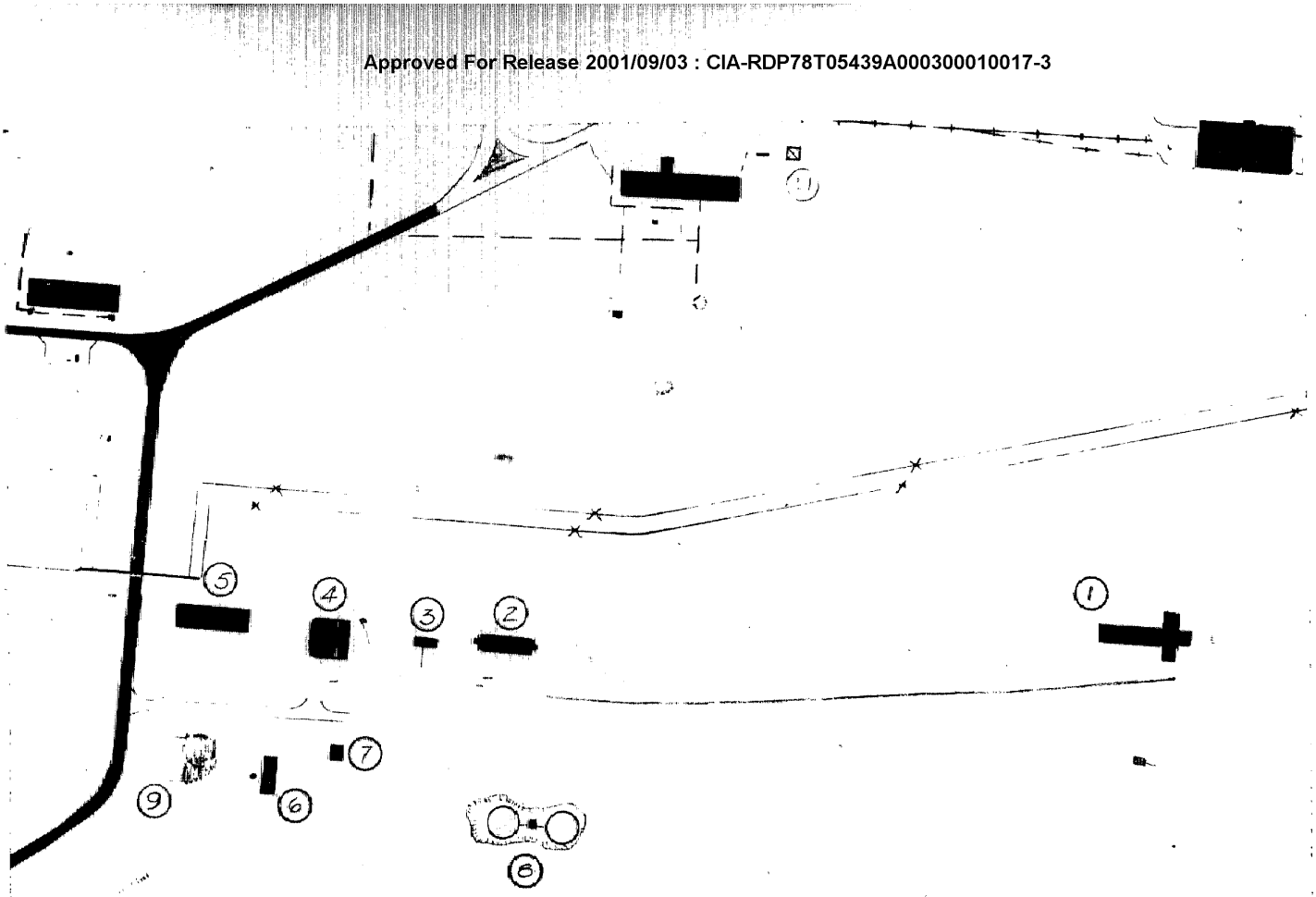

FIG. 5

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